FIG. 1

S F 1 : PLANE SHAPE GENERATING SUBSYSTEM
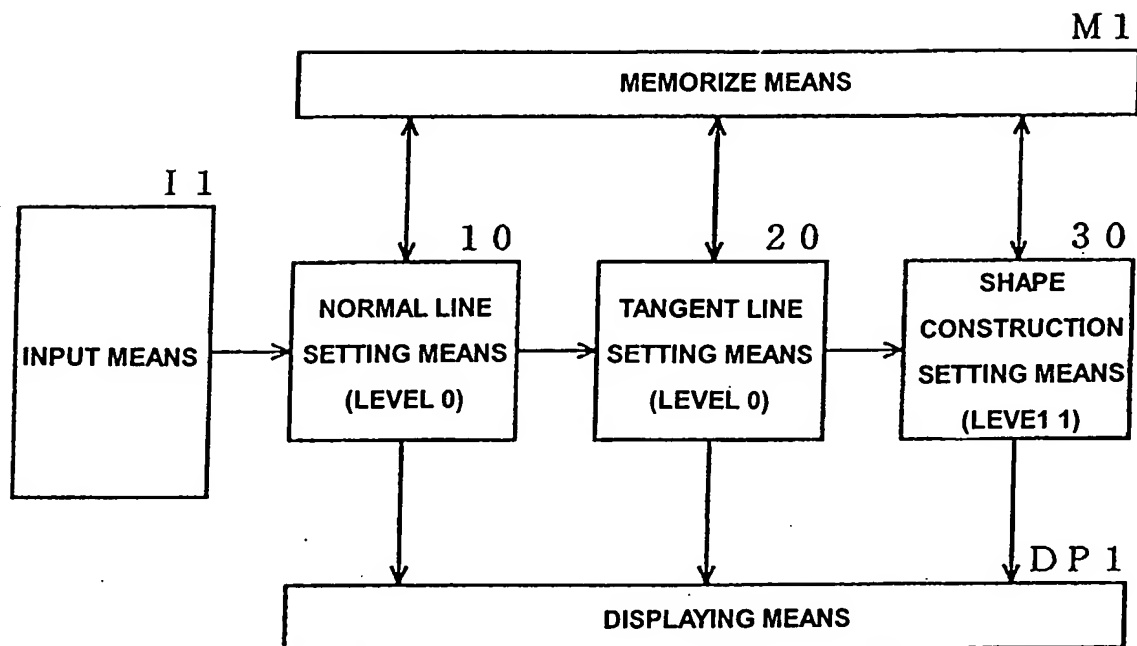
M 1
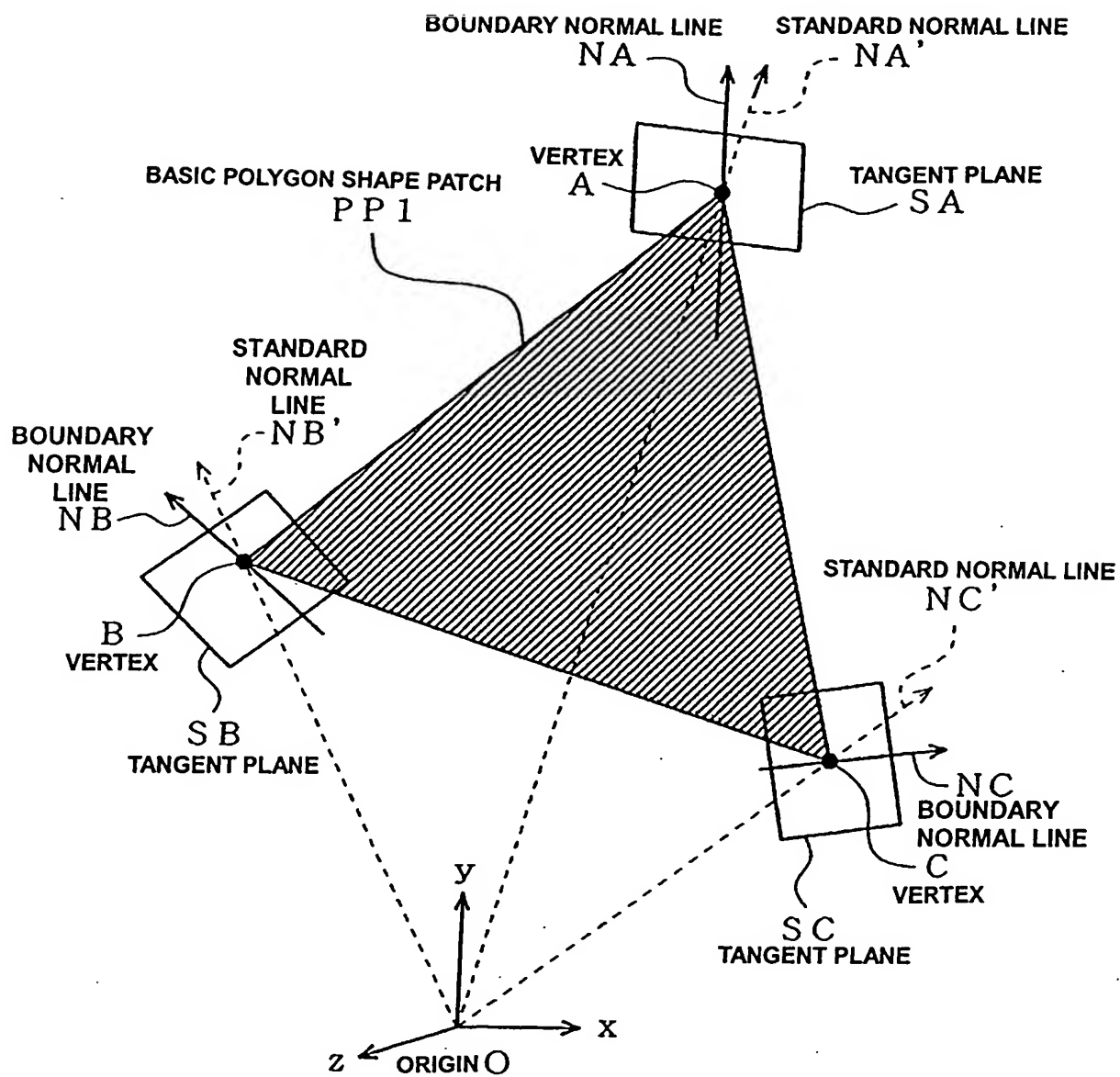
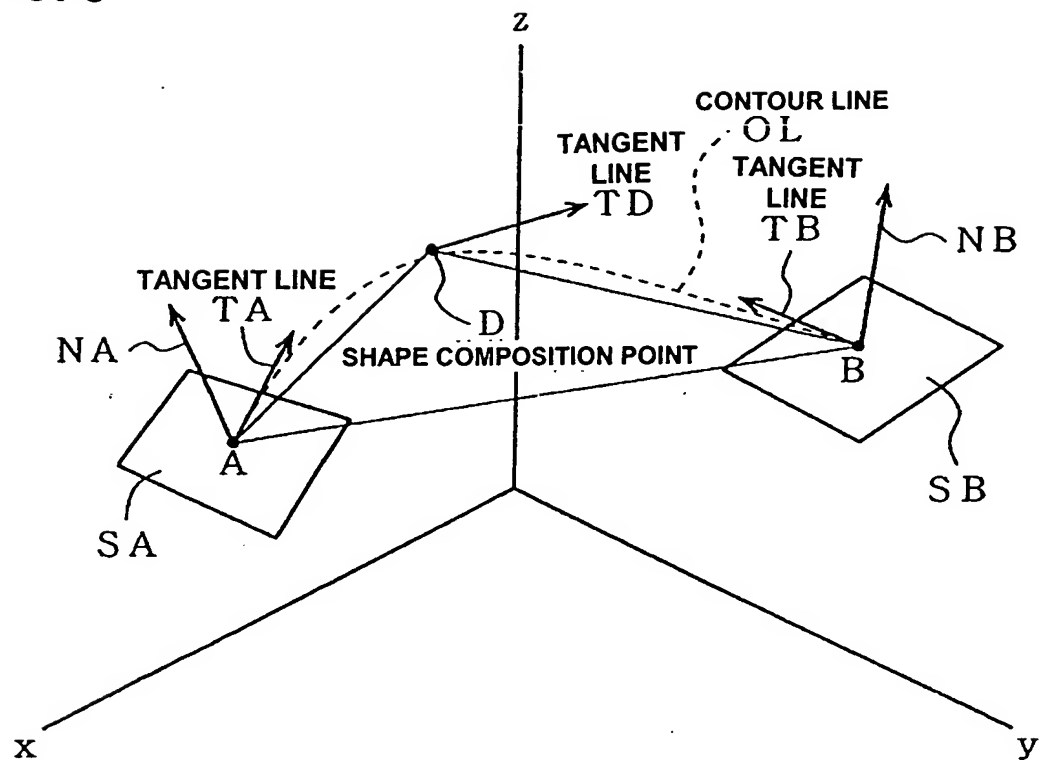| MEMORIZE MEANS |
|---|

I 1

INPUT MEANS

1 0 NORMAL LINE SETTING MEANS (LEVEL 0)

2 0 TANGENT LINE SETTING MEANS (LEVEL 0)

3 0 SHAPE CONSTRUCTION SETTING MEANS (LEVE1 1)

D P 1

DISPLAYING MEANS

FIG. 2

BOUNDARY NORMAL LINE
NA

STANDARD NORMAL LINE
NA'

BASIC POLYGON SHAPE PATCH
PP1

VERTEX
A

TANGENT PLANE
SA

STANDARD
NORMAL
LINE
NB'

BOUNDARY
NORMAL
LINE
NB

B
VERTEX

SB
TANGENT PLANE

STANDARD NORMAL LINE
NC'

NC
BOUNDARY
NORMAL LINE

C
VERTEX

SC
TANGENT PLANE

y

x

z ← ORIGIN O

FIG. 3

z

CONTOUR LINE
OL

TANGENT
LINE
TD

TANGENT
LINE
TB

NB

TANGENT LINE
TA

NA

D

SHAPE COMPOSITION POINT

B

SB

A

SA

x

y

FIG. 4

ND

z

NA

NB

CONTOUR LINE
OL

TD

NB

SD

S

NA

D

SHAPE COMPOSITION POINT

B

A

SB

SA

x

y

$$NA \times NB = S$$
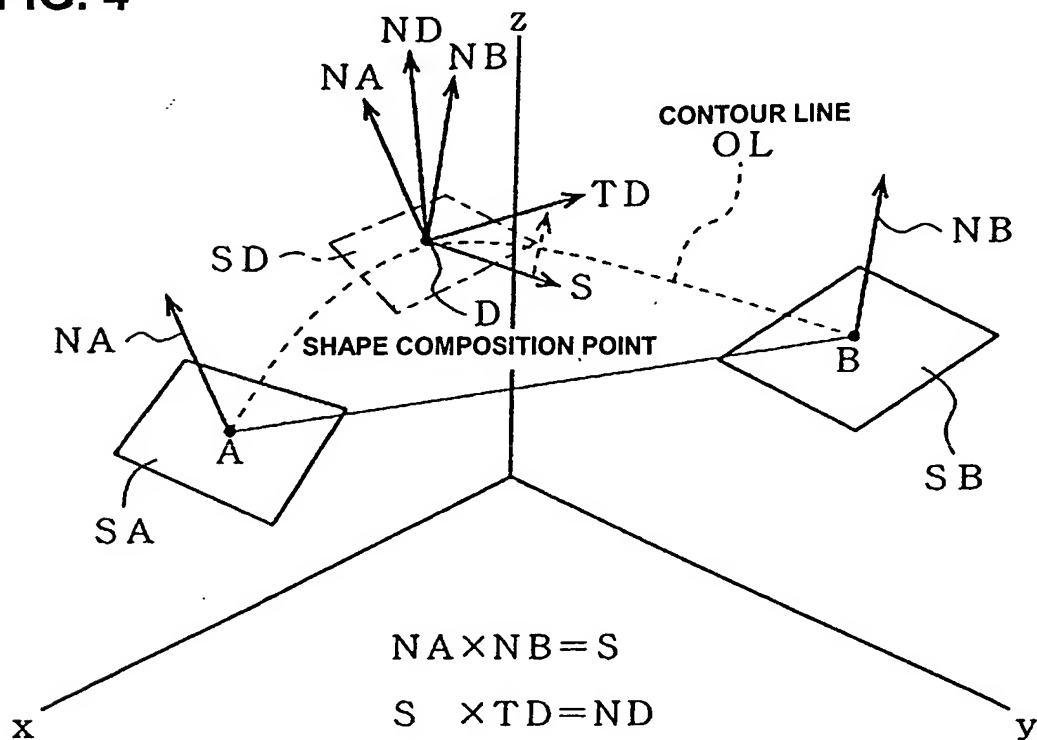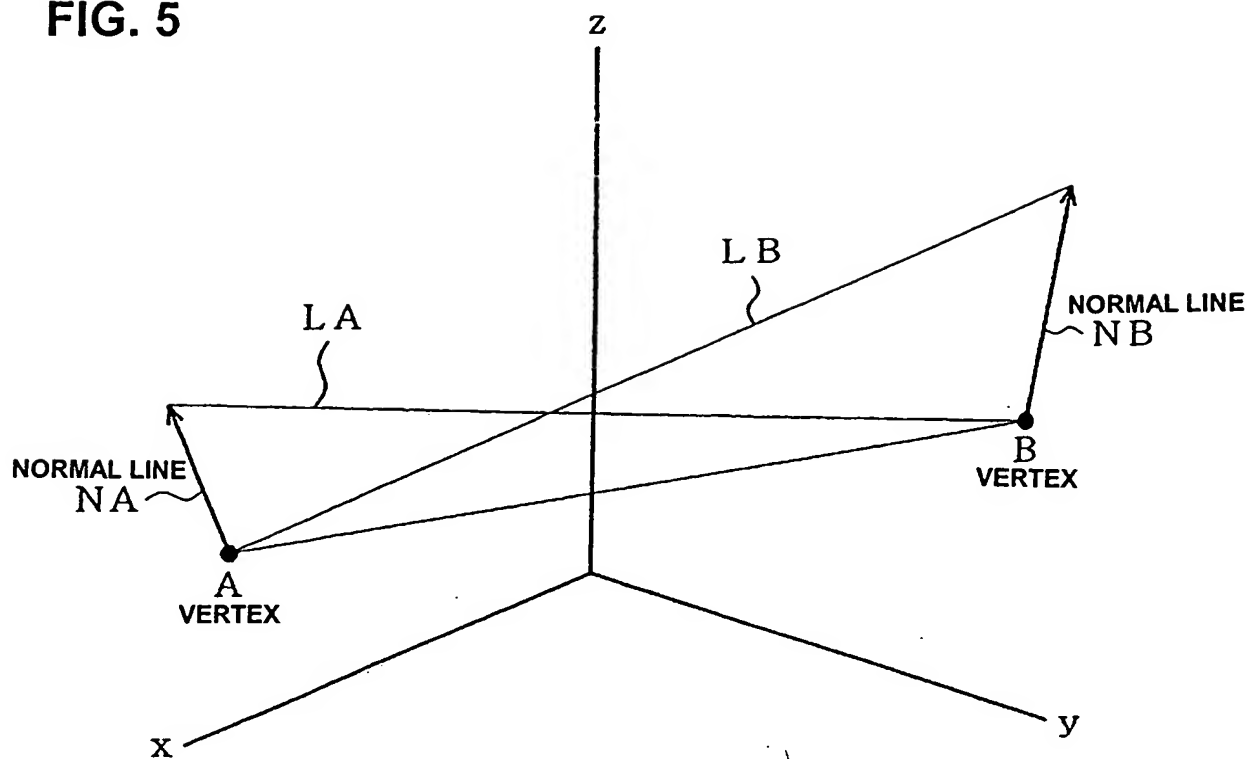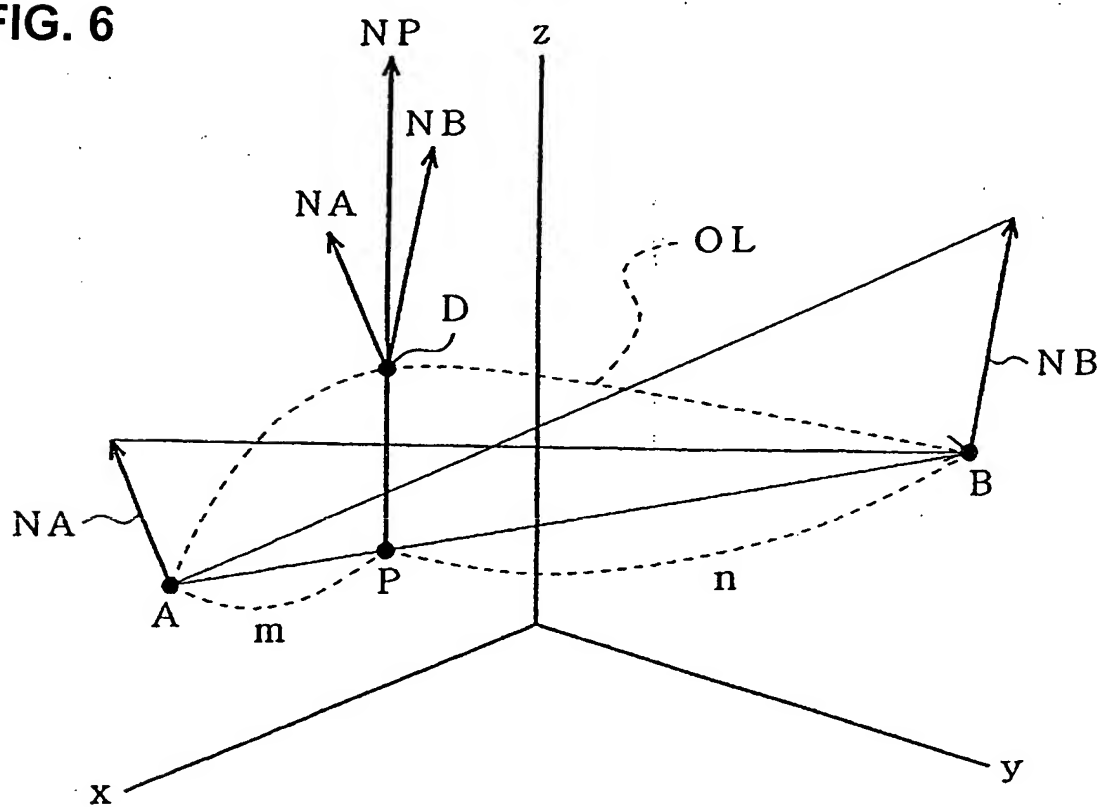
$$S \times TD = ND$$
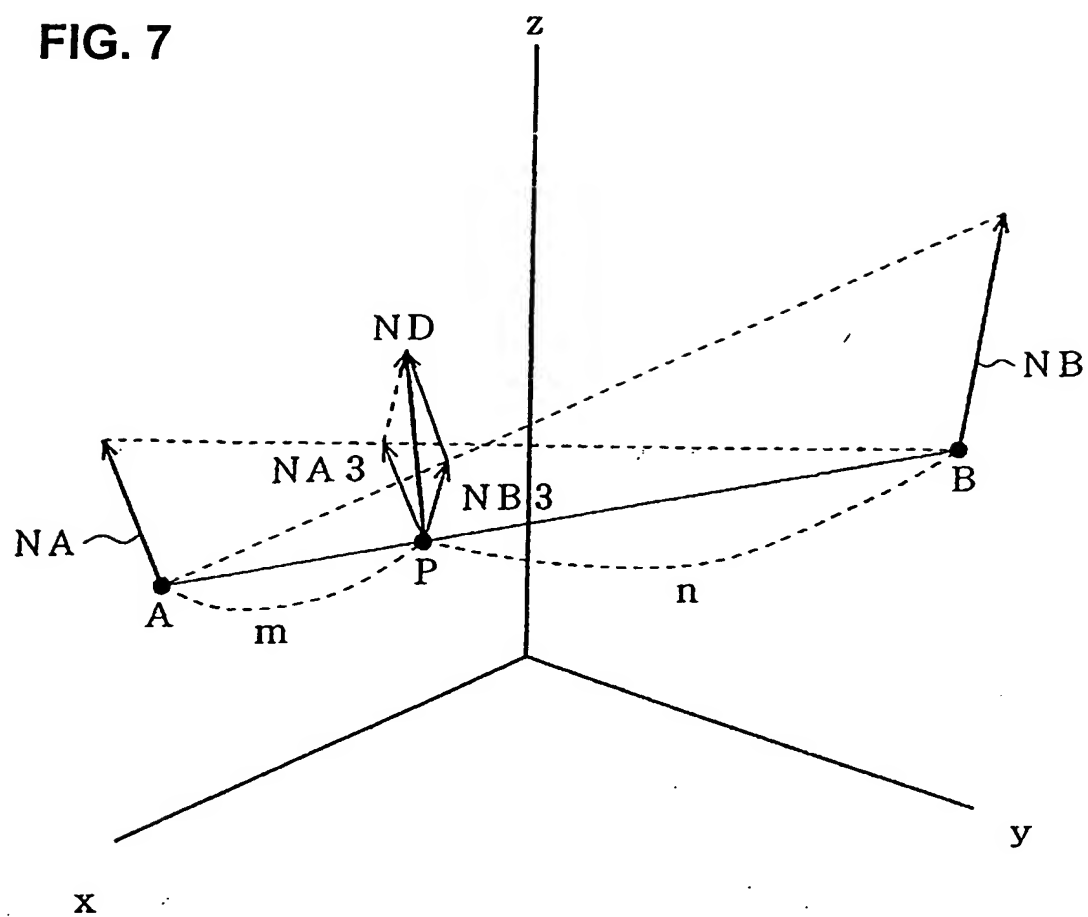
FIG. 5

FIG. 6

FIG. 7

FIG. 8

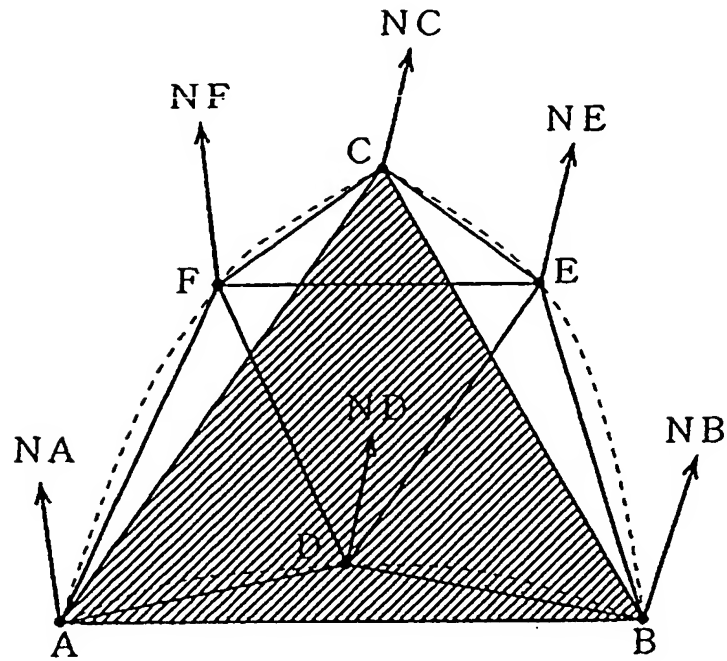PP1 : BASIC TRIANGLE SHAPE TYPE PLANE PATCH (TRIANGLE ABC)

FIG. 9
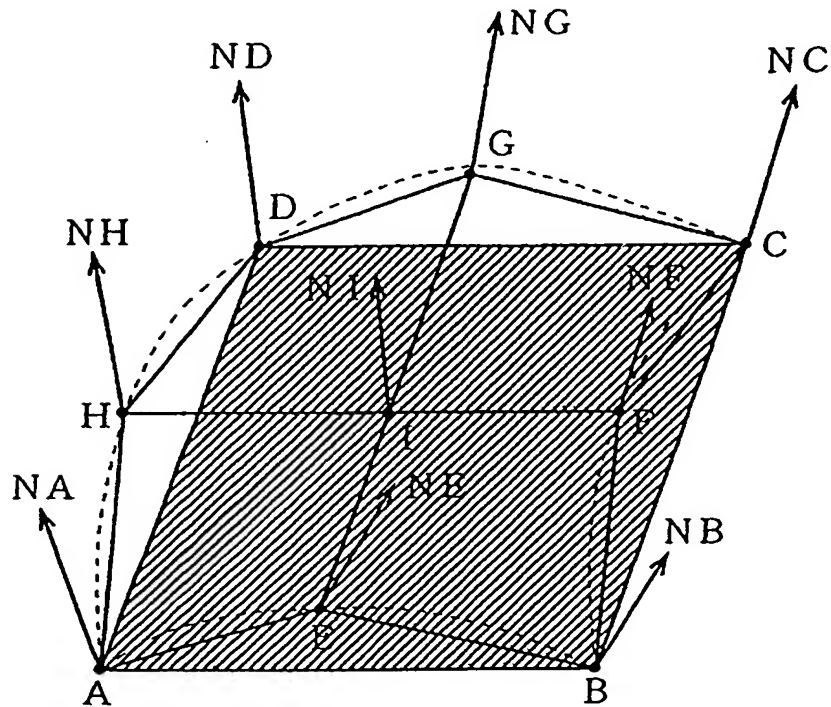
PP2 : BASIC QUADRANGULAR SHAPE TYPE PLANE PATCH
(QUADRANGULAR ABCD)

FIG. 10

S F 0 : PLANE SHAPE GENERATING SYSTEM